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POLLUTION
WHAT EXTENSION CAN DO ABOUT IT

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THE POLLUTION PROBLEM...

Man's most vital resources are air, land, water, and living things.

The natural environment is made up of interacting systems without which life could not exist. Animal life depends on plant life, and both depend on air, soil, and water.

Society too, is interrelated. No longer can we say "I wish *they* would do something about it." Do you drive a car? Want quality foods at reasonable cost? Like a well illuminated, air-conditioned home and work place? Do you use a garbage disposal and dishwasher? Use detergents for your laundry?

"Yes" answers to these and similar questions means you are contributing to environmental pollution.

Someone must refine the fuel and oil for your car, use fertilizers and pesticides to produce the abundance of food, generate the electricity for your comfort and convenience, and process and dispose of the wastes from your home.

WHAT CAN WE DO?

Organize! Become informed. Learn what action you can take. Your club group or your friends and neighbors can get together to discuss and study about ecology. Learn how it relates to the environmental problems that we all help create. Enlist the aid of your librarian. READ! Evaluate different viewpoints.

Talk with the technically competent people in your community – specialists who can help broaden your understanding, answer questions and suggest some solutions.

HOW EXTENSION CAN HELP YOU

The Cooperative Extension Service, through the partnership of your county and State governments with the U.S. Department of Agriculture, is working with many other agencies to help citizens solve environmental problems.

Consult with your local Extension county agent or home economist. They are trained in developing educational meetings and seminars. They can help you put together a comprehensive study program, and locate the technical resource people to give you information. They can help your group plan a practical public affairs program to reach others via the press, radio, and television.

KINDS OF ASSISTANCE

Ask your local Extension staff about the kinds of help available to identify and reduce your local pollution problems.

Whether it's composting garbage, caring for your lawn, controlling insect pests and rodents, preventing soil erosion, evaluating your water supply, heating your home, disposing of sewage, or evaluating soaps and detergents, the Extension office personnel can be of help.

Extension is working with citizens to help solve pollution problems in the following areas. . .

Air Pollution

A growing problem of great national and international concern, air pollution can be deadly.

Agriculture is directly concerned because air pollution damages farm crops and forests, animals, equipment and facilities. The kind of damage and how bad it is depends on the kind, concentration, and location of pollutant sources, how pollutants interact, and the susceptibility of the crop or animal.

Agriculture-related air pollutants include fumes, odors, dust and smoke from production and processing operations. Weed and plant pollens and allergens are also important.

Primary pollutants are not changed in the air. They emanate from industrial, commercial, domestic, agricultural and transportation activities and consist of dust, smoke, fumes and droplets.

Secondary pollutants are the combustion products from the newer fuels, or materials that have interacted with the primary pollutants in the atmosphere. Los Angeles smog is a classic example of this type of pollution.

Smog is the litter that we discharge into the atmosphere—from our incinerators, energy generating stations, automobiles, and the chimneys of our homes and public buildings.

Water Pollution

Our water resources are being increasingly polluted with diverse and novel materials.

The accumulation of nutrients in lakes is a natural process and essential to support plant life. But when nutrients exceed the maintenance level, excessive plant growth occurs, and the oxygen content of the water is dangerously reduced. This is called EUTROPHICATION. This is serious. It increases water treatment costs, imparts off-flavor and odor, impairs boating and swimming, kills fish, and lowers property values.

In addition to excess nutrients, our lakes, rivers, and streams are receptacles for sewage and animal wastes and the diseases that go with them.

Industries pour a wide variety of soluble and insoluble chemicals into these waters. Some, such as mercury, are impossible to remove, and poisonous.

All living things depend on water for survival. We have a responsibility to preserve its quality—to understand how it is respected or abused in our own locality.

Does your community have an efficient sewage system, or is raw sewage discharged into the receiving waters with every heavy rain? How many industries use *your* lakes or rivers for sinks, and what is the nature of the materials discharged? You and your organization could look into these questions.

Soil Pollution

Pollution of the soil can impair the yield and quality of farm products and contribute to water and air pollution. The repeated application of insecticides and fungicides containing arsenic, copper, lead, and mercury may jeopardize the soil's usefulness for growing certain crops for a long time. Airborne chemicals from industry and cars and trucks find their way into soils.

When improperly used, some chemicals may destroy beneficial soil organisms or be taken up by the plants in amounts that make them unsafe as food. Other chemicals, when broken down by soil organisms, result in excessive levels of compounds such as nitrate, which pollute water they wash into.

Even irrigation can pollute soil. As the water evaporates, salt is left behind.

Land, like water, receives our wastes. The so-called land fills or garbage dumps, if not properly selected and managed, can pollute land, water, and air.

Wherever you live, in city or country, acquaint yourself with the various land use practices in your community. Learn whether they enhance, conserve, or degrade the quality of your environment, and why.

Animal wastes and pesticides are two types of agriculture-related materials that are of special concern as potential pollutants of air, water or soil.

Animal Wastes — Wastes from farm animals can become a serious source of water pollution. They enter streams and lakes by surface runoff or underground seepage. The diseases carried by these wastes threaten the health of man and animals. The physical presence of these wastes in water has caused fish kills and damage to shellfish.

Odor and fly problems arising from these wastes are a serious concern, especially in areas where suburbs are encroaching upon farmlands. Lawsuits have ensued because of this incompatibility.

Both the producer and the consumer should acquaint themselves with these problems. Your local Extension agent can arrange for meetings where the interdependence of farmer and consumer can be discussed.

Pesticides — Man has identified as pests those things that are destructive, noxious or annoying to his wellbeing. We don't want worms in our fruits or vegetables; we abhor cockroaches, ants and lice; and we are annoyed by flies and mosquitoes. Man has devised chemical weapons to fight them — pesticides.

Pesticides become pollutants when they or their products remain in the environment, or if they reach some part of the environment other than the intended target.

These materials vary in the amount of pollution they produce. Those that accumulate in soil, water, air, wildlife, fish or foods are of special concern.

You can learn more about pesticides — how they work, their benefits and their dangers to plants, animals, and man; their economic impact; and ecological effects.

WHAT TO DO!

No single agency can provide all of the technical or social expertise or responsibility concerning pollution in our environment. But all institutions respond to proper stimuli. You will need to tackle these problems on a community scale. Don't presume that your neighbor knows what you know.

You and your group can act as a catalyst. Get people involved to stimulate both curiosity and understanding. Be sure to involve the news media people, the technical experts, public officials, and business and religious representatives.

The Extension Service can help you develop an educational program to gain involvement and action in your community.

The quality of your environment reflects your interest and responsibility. Is the image one of which you are proud?

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